WHAT IS CLAIMED IS:

1.   A method for an adapter card, for use in a computer, to provide conditional access by the computer to input data streams, wherein a data stream is comprised of at least one frame and each frame includes an address identifying the data stream, comprising the steps of:

maintaining an Access Table, wherein each table entry includes an address field for storing an address corresponding to a data stream which the computer is authorized to receive;

receiving a frame;

determining the address from the frame;

determining whether the frame address matches an address maintained in the Access Table;

discarding the frame if a match is not found; and

processing and transmitting the frame to the computer through a bus interface if a match is found.

2.   The method of claim 1, wherein the data streams are transmitted via satellite.

3.   The method of claim 1, wherein the adapter card receives a series of frames representing a plurality of multiplexed data streams, thereby providing conditional access to each of the multiple data streams.

4.   The method of claim 1, wherein each table entry of the Access Table further includes a key field for storing a Data Key corresponding to a data stream which the computer is authorized to receive, and the method further comprises the steps of:

retrieving the table entry corresponding to the matching frame and table address; and

if a match is found, decrypting the frame with the Data Key in the retrieved table entry.

5.   The method of claim 4, further comprising the steps of:

providing a User Key;

receiving at least one Data Key, encrypted with the User Key;

storing each Data Key in encrypted form in the Access Table; and

decrypting the Data Key in the retrieved table entry with the User Key, before processing a frame for which a frame match is found.

6.   The method of claim 4, wherein each table entry of the Access Table further includes a group field for storing a Group Key corresponding to a data stream which the computer is authorized to receive, and the method further comprises the steps of:

providing a User Key;

receiving at least one Group Key, encrypted with the User Key;

receiving at least one Data Key, encrypted with the Group Key;

storing each Group Key and Data Key in encrypted form in the Access Table; and

decrypting the Group Key in the retrieved table entry with the User Key, and decrypting the Data Key in the retrieved table entry with the decrypted Group Key, before processing a frame for which a frame match is found.

7.   The method of claim 1, further comprising the step of storing the processed frame in an output buffer prior to transmission to the computer.

8.   The method of claim 1, further comprising the step of controlling, by the computer, the transmission of the processed frame to the computer.

9.   The method of claim 1, further comprising the step of controlling, by the adapter card, the transmission of the processed frame to the computer.

10.   A method for an adapter card for use in a computer, to process input data streams, wherein a data stream is comprised of at least one frame, for conditional access by the computer, and to process input data transmitted from the computer, comprising the steps of:

maintaining an Access Table, wherein each table entry includes an address field for storing an address corresponding to a data stream which the computer is authorized to receive;

receiving input data;

determining whether the input data contains data stream frames or computer data, wherein

if the input data contains data stream frames, for each frame:

determining an address of the frame;

determining whether the frame address matches an address maintained in the Access Table;

discarding the frame if a match is not found; and

processing the frame into output data if a match is found;

if the input data contains computer data, processing the computer data into output data; and

transmitting the output data to the computer via a bus interface.

11.   The method of claim 10, wherein the data streams are transmitted via satellite.

12.   The method of claim 10, wherein input data stream frames comprise a series of frames representing a plurality of multiplexed data streams, thereby providing conditional access to each of the multiple data streams.

13.   The method of claim 10, wherein input data transmitted from the computer includes a data field, a key field, and an instruction field, and if the input data contains computer data, the step of processing the computer data into output data further comprises the steps of:

determining the operation to be performed based on the instruction field;

determining the key based on the key field;

determining the data based on the data field; and

performing the determined operation on the data with the key.

14.   The method of claim 10, wherein each table entry of the Access Table further includes a key field for storing a Data Key corresponding to a data stream which the computer is authorized to receive, and the steps for processing data stream frames further comprise the steps of:

retrieving the table entry corresponding to the matching frame and table address; and

if a match is found, processing the frame by decrypting the frame with the Data Key in the retrieved table entry.

15.   The method of claim 14, wherein the steps for processing data stream frames further comprise the steps of:

providing a User Key;

receiving at least one Data Key, encrypted with the User Key; and

decrypting the Data Key in the retrieved table entry with the User Key before processing a frame for which a frame match is found.

16.   The method of claim 14, wherein each table entry of the Access Table further includes a group field for storing a Group Key corresponding to a data stream which the computer is authorized to receive, and the steps for processing data stream frames further comprise the steps of:

providing a User Key;

receiving at least one Group Key, encrypted with the User Key;

receiving at least one Data Key, encrypted with the Group Key;

storing each Group Key and Data Key in encrypted form in the Access Table; and

decrypting the Group Key in the retrieved table entry with the User Key, and decrypting the Data Key in the retrieved table entry with the decrypted Group Key, before processing a frame for which a frame match is found.

17.   The method of claim 10, further comprising the step of providing an output buffer on the adapter card for storing the output data prior to transmission to the computer.

18.   The method of claim 10, further comprising the step of controlling, by the computer, the transmission of the output data to the computer.

19.   The method of claim 10, further comprising the step of controlling, by the adapter card, the transmission of the output data to the computer.

20.   An adapter card for use in a computer, for providing conditional access by the computer to input data including data streams, wherein each data stream is comprised of at least one frame and each frame includes an address identifying the data stream, comprising:

a receiver for receiving a data stream frame;

an Access Table, wherein each table entry includes an address field for storing an address corresponding to a data stream which the computer is authorized to receive;

an integrated filter/crypto (IFC) block for determining an address of the received frame and determining whether the frame address matches an address maintained in the Access Table, wherein if a match is not found, the IFC block discards the frame, and if a match is found, the IFC block processes the frame into output data; and

a bus interface for transmitting the output data to the computer.

21.   The adapter card of claim 20, wherein the input data comprises data streams transmitted via satellite.

22.   The adapter card of claim 20, wherein the input data further includes data from the computer transmitted from the computer through the bus interface to the IFC block, and the IFC block processes the computer data into output data.

23.   The adapter card of claim 22, wherein the input data from the computer includes data, information indicating a key, and an instruction indicating an operation to be performed on the data with the key, and the IFC block processes the computer data by performing the indicated operation with the indicated key on the data.

24.   The adapter card of claim 20, wherein the IFC block is embodied in an ASIC.

25.   The adapter card of claim 20, wherein:

each table entry of the Access Table further includes a key field for storing a Data Key corresponding to a data stream which the computer is authorized to receive; and

the IFC block retrieves the table entry corresponding to the frame address from the Access Table, and, if a match is found, uses the Data Key of the retrieved table entry to process the frame into output data.

26.   The adapter card of claim 25, further comprising a User Key, stored on the adapter card, wherein the adapter card receives Data Keys encrypted with the User Key and stores each Data Key in the Access Table in encrypted form, and the IFC block decrypts the retrieved Data Key with the User Key and, if a match is found, uses the decrypted Data Key for processing the frame.

27.   The adapter card of claim 25, further comprising a User Key, stored on the adapter card, wherein:

each table entry of the Access Table further includes a group field for storing a Group Key corresponding to a data stream which the computer is authorized to receive;

the adapter card receives at least one Group Key encrypted with the User Key and receives at least one Data Key encrypted with the Group Key, wherein each Group Key and each Data Key is stored in the Access Table in encrypted form; and

the IFC block decrypts the Group Key in the retrieved table entry with the User Key and decrypts the Data Key in the retrieved table entry with the decrypted Group Key, before processing a frame for which a frame match is found.

28.   The adapter card of claim 20, further comprising an output buffer for storing the output data prior to transmission to the computer.

29.   The adapter card of claim 20, wherein the computer controls the transmission of the output data to the computer via the bus interface.

30.   The adapter card of claim 20, wherein the computer controls the transmission of the output data to the computer via the bus interface.